FIBROPAPILLOMATOSIS IN OLIVE RIDLEY TURTLES IN COSTA RICA

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Fibropapillomatosis (FP) is a neoplastic disease that primarily affects green turtles (*Chelonia mydas*) in epidemic proportions. Although several infectious agents (herpesvirus, retrovirus and papillomavirus) have been associated with the condition, the etiologic agent has not been isolated or characterized. FP has been reported worldwide in green turtles and it has been recently reported in other turtle species, including loggerheads (*Caretta caretta*) in Florida and olive ridleys (*Lepidochelys olivacea*) from the Pacific coasts of Mexico and Costa Rica. Normal skin (6) and tumor (41) biopsies were collected from 25 adult female olive ridleys in Ostional, Costa Rica, between July and September 1997. Grossly, biopsies were small, white to grey, smooth to verruciform, raised masses on the integument of the neck and flippers. All 41 masses were 25 mm or less in diameter and histologically, 8/41 masses were small foci of chronic active dermatis and not tumors; and 33/41 were diagnosed as fibropapillomas. Twelve of 33 tumors were regressing and 9 of the remaining 21 tumors had early histological changes that suggested degeneration within the tumor. During field surveys based on gross lesions, prevalences of 1-10% have been reported in this nesting population. This is considered the first diagnostic confirmation of FP in olive ridley turtles.

RESCUE, REHABILITATION AND RELEASE OF MARINE TURTLES WITH FIBROPAPILLOMATOSIS: AN EPIDEMIOLOGIC PERSPECTIVE

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A perspective on wildlife epidemiology will be given regarding the rescue, rehabilitation and release of stranded turtles affected with fibropapillomatosis (FP). An objective overview will be provided to outline the pros and cons of rehabilitation of endangered species and their reintroduction into the wild. How rehabilitation provides for the 'welfare' of individuals is questioned as we determine if release programs for turtles with FP are in the best interest of the wild population.

There is no doubt that rehabilitation techniques in endangered species have provided a wealth of biomedical information that otherwise would not be collected. The data obtained in those settings have lead to the development of diagnostic techniques, baseline physiologic information, and experimental procedures that have contributed to the identification of possible causes and treatments of disease. Rehabilitation of wild animals is definitely an educational experience for both veterinarians/biologists and the general public.

If we are to release treated turtles known to be exposed to an infectious agent we should consider the risks that may be avoided by this reintroduction, including veterinary practices which favor reintroduction of FP and other diseases and their transmission to wild turtles. Based on recent research findings, we are dealing with more than one infectious agent of viral nature (*i.e.* herpesvirus, retrovirus, papillomavirus). All these viruses are known to spread by direct contact or shed intermittently for long periods of time in other species. Etiologic agent(s) need to be identified and characterized and their epidemiology understood before attempting to release turtles with FP back into the wild. In addition, these research efforts will provide better management tools for the control and treatment of this disfiguring disease.